REMARKS

The Office Action mailed June 17, 2009 has been carefully considered. Within the Office Action Claims 1-24 have been rejected. The Applicant has amended Claims 1, 17 and 24. Reconsideration in view of the following remarks is respectfully requested.

Rejection under 35 U.S.C. § 103

Claims 1-24 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 4,836,975 to Guldner et al. (hereinafter "Guldner"). This rejection is respectfully traversed.

In determining obviousness four factual inquiries must be looked into in regards to determining obviousness. These are determining the scope and content of the prior art; ascertaining the differences between the prior art and the claims in issue; resolving the level of ordinary skill in the pertinent art; and evaluating evidence of secondary consideration. Graham v. John Deere, 383 U.S. 1 (1966); KSR Int'l Co. v. Teleflex, Inc., No 04-1350 (U.S. Apr. 30, 2007) (" Often, it will be necessary . . . to look into related teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an **apparent reason** to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis **should be made explicit**.") (emphasis added).

In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F.2d 1530 (Fed. Cir. 1983). Thus, when considering the whole prior art reference its entirety,

portions that would lead away from the claimed invention must be considered. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540 (Fed. Cir. 1983), See M.P.E.P. 2141.02. Thus, it is improper to combine references where the references teach away from their combination. In re Grasselli, 713 F.2d 731 (Fed. Cir. 1983).

Applicant's specification relates to a device and method for conditioning nuclear fuel assemblies. As specified in the present application, nuclear fuel assemblies require particular procedures for their use, transport and even disposal as waste. Nuclear power plants are provided with a pool in which these assemblies are stored, but this storage is temporary and the nuclear fuel assemblies then have to be evacuated to safe so-called "final" or "interim" storage sites, and in particular including leak tight metallic confinements protected by concrete storage modules.

Applicant's specification explains that the leak tight confinements containing nuclear fuel assemblies need to be put into place in "temporary" radiation shielding receptacles when the nuclear fuel assemblies are transported to their destination. Also, according to safety rules, the inner receptacle itself must be placed in a transfer package with radiation shielding walls. Considering that the process of loading nuclear fuel assemblies into the inner receptacle must be done underwater, water that is trapped between the inner and outer receptacle must be adequately drained with inert gases added before transport. This is a unique challenge which has not been addressed by the prior art. Applicant's device and method utilizes a new geometry with a free passage between the inner and outer receptacles to enable drainage and adding of inert gas into the outer receptacle, or checking the seal.

Guldner discloses a container for conditioning liquid radioactive material and not solid nuclear fuel assemblies. In particular, Guldner discloses a device for conditioning liquid radioactive material by the implementation of an internal receptacle in two parts 3, 4 physically

separated and linked mechanically together by support struts 10. These support struts 10 are mounted inside the external receptacle 2 in order to achieve a physical decoupling of neutrons (Guldner, column 1, lines 55-60). The physical decoupling is ensured by liquid, preferably natural water for its characteristics (see column 1, lines 64-68).

In particular, Guldner expressly states that a plunger tube 14 leads from the cap 6 to the bottom of the outer container 2 for filling a fill chamber 37 and also evacuating air from the fill chamber 37 in the outer container as water is flowed in. (Guldner, column 3, lines 50-53). Further, Guldner states that the water is pumped through the plunger tube 14 into the fill chamber 37 as a liquid filler, whereby a coupling piece of the non-illustrated hose line is uncoupled from the air evacuation and ventilation connector 15 whenever water emerges through the connector 15. In fact, once the outer container 2 is filled with water, overflow of water will emerge from connector 15. This is due to the air inside the outer container 2 being pushed out as water fills up the container. Thus, Guldner does not teach or suggest that water is drained from the outer container via the passage, as recited in the claims. In fact, Guldner only teaches that air is removed from the outer container via the connector 15, Thus, Guldner's air evacuation and ventilation connector does not assimilate to the drainage of discharging whole water from the outer container followed by adding inert gas.

Claim 1 recites, *inter alia*, a device for conditioning of nuclear fuel assemblies comprising: an inner leak tight metallic receptacle including a loading opening for receiving and conditioning solid nuclear fuel assemblies; and an outer leak tight receptacle that contains the inner leak tight metallic receptacle, the outer leak tight receptacle at least including a bottom and an open end, such that when the inner leak tight metallic receptacle is located in the outer receptacle, a passage remains free between the two receptacles from the open end to the bottom of the outer receptacle, said passage including means for draining water from the outer receptacle

and/or for controlling the leak tightness of the outer receptacle. As stated above, Guldner does not teach or suggest that water is drained from the outer container via the passage, as recited in Claim 1. Moreover, Guldner's air evacuation and ventilation connector does not assimilate to the drainage of discharging whole water from the outer container followed by adding inert gas, as recited in Claim 1. Additionally, Guldner does not teach or suggest an inner leak tight metallic receptacle including a loading opening for receiving and conditioning solid nuclear fuel assemblies, as recited in Claim 1. Considering that Guldner does not teach and suggest each and every element/limitation in Claim 1, a *prima facie* case of obviousness has not been established. Accordingly, Claim 1 is allowable over the cited art.

Claim 17 recites a method of draining an outer receptacle for radioactive material comprising: inserting an inner leak tight metallic receptacle into the outer receptacle, the inner leak tight metallic receptacle comprising a loading opening for receiving solid nuclear fuel assemblies therein, the inner leak tight metallic receptacle and the outer receptacle having dimensions to define a passage remaining free between the two receptacles; confining the radioactive material in the inner leak tight receptacle; and draining water from the outer receptacle through the passage. As stated above, Guldner does not teach or suggest that water is drained from the outer container via the passage, as recited in Claim 17. Additionally, Guldner does not teach or suggest an inner leak tight metallic receptacle including a loading opening for receiving and conditioning solid nuclear fuel assemblies, as recited in Claim 17. Considering that Guldner does not teach and suggest each and every element/limitation in Claim 17, a *prima facie* case of obviousness has not been established. Accordingly, Claim 17 is allowable over the cited art.

Claim 24 recites a metallic receptacle for conditioning solid nuclear fuel assemblies, comprising a non-removable bottom and an open end, and further comprising a duct opening up

in the non-removable bottom, said duct enabling drainage of water from between an adjusted receptacle positioned within the metallic receptacle, and the metallic receptacle. As stated above, Guldner does not teach or suggest that water is drained from between the outer container and in inner receptacle via the duct, as recited in Claim 24. Considering that Guldner does not teach and suggest each and every element/limitation in Claim 24, a *prima facie* case of obviousness has not been established. Accordingly, Claim 24 is allowable over the cited art.

Claims 2-16 and 18-23 are dependent on respective Independent Claims 1 and 17. As stated above, Claims 1 and 17 are allowable over Guldner. Accordingly, Claims 2-16 and 18-23 are allowable for being dependent on allowable base claims.

Conclusion

It is believed that this reply places the above-identified patent application into condition for allowance. Early favorable consideration of this reply is earnestly solicited.

If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case. Please charge any additional required fee or credit any overpayment not otherwise paid or credited to our deposit account No. 50-3557. A one month extension fee accompanies this reply.

Respectfully submitted,

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